NHMRC funding of mental health research

A case for better alignment of research funding with burden of disease

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Mental health research has long been the poor cousin in medical research, despite mental illness being both an independent and comorbid risk factor for every major medical disease, and a significant contributor to morbidity and mortality. Of the five major non-communicable disease areas, mental illness has the largest impact on the world economy by reducing gross domestic product.[1] Yet, 11 times more money is donated from the private and corporate sectors to cancer research than to mental health research. In addition, cancer research receives twice the funding from governments.[2]

This pattern is reflected in the funding distribution from the National Health and Medical Research Council (NHMRC) in Australia, where mental health research has received a lower proportion of NHMRC health funding compared with other National Health Priority Areas such as cancer, diabetes and cardiovascular disease. Between 2001 and 2010, for example, mental health received about 9.5% of NHMRC funding.[3] NHMRC funding for suicide research was lower than funding for falls, skin cancer and motor vehicle accidents, despite the fact that suicide is responsible for more deaths.[4] In 2015, when NHMRC announced the membership of its strategic committees, there were no members with mental health expertise, in contrast to previous years.

We tested whether the proportional NHMRC funding to mental health has changed since our 2010 analysis, by estimating the number and dollar value of NHMRC funding schemes awarded to mental health-related topics during 2015. We also compared burden of disease estimates with NHMRC funding for mental health to determine whether the proportion of funding allocated to mental health-related research is in line with its effect on the population.

Using data from the October–November 2015 announcement of NHMRC results, we conducted a search of the following fields: grant title, field of research, all keywords and research summary. Our search used the following text strings: mental health, mental illness, depressi*, anxi*, psychosis, schizophrenia, substance use, alcohol use, smoking, adhd, stimulants, cocaine, heroin, amphetamine, sleep, obsessive, autism, panic, ptsd, suicid* and bipolar. The search conservatively counted psychosocial research with any mental health component as 100% "mental health".

In 2015, the NHMRC funded 1037 projects or fellowships across all health categories, which were worth a total of $763 million. Of these, 85 were on the topic of mental health, constituting 8.6% of funding (Box). In 2009, the proportion of the total funding allocated to mental health was 9.5%. Recent data from the Australian Institute of Health and Welfare[5] suggest that the burden of disease for mental disorders is 12.1%,

or 14.6% if suicide and self-inflicted injuries are included, with mental and substance misuse disorders accounting for the largest burden in younger age groups. If funding was proportional to the burden of disease (disability adjusted life years), mental health research was short $26.6 million or 41% of the total funding. A comparison of cancer, cardiovascular and diabetes research using a similar search strategy found that 14.3%, 15.5% and 5.7% of funding went to these areas. Based on the burden of disease for these disease areas (18.5%, 14.6% and 2.3% respectively), these funding figures represent a smaller relative shortfall for cancer research ($32.1 million, 29%), a small gain for cardiovascular research ($7.1 million, 6%) and a large net gain for diabetes research ($17.6 million, 41% gain).

Our analysis indicates that, in the major NHMRC funding announcement for 2015, mental health research received significantly less funding than its disease burden (8.6% versus 12.1%), and less total funding than the average received in the previous decade (8.6% versus 9.5% for 2001–2010). This funding pattern is in contrast to the United Kingdom, where the research investment in mental health by the government has increased as a proportion of overall spend by 1.5% over the decade 2004–2014.[2] The present analysis had limitations, such as not being able to deal with the problem of infrastructure and clinical environment in detail, compare in detail the nature of cardiovascular and cancer research, or reconfirm the high quality of Australian mental health research.[3]

There are many potential reasons as to why mental health research does not receive NHMRC funding

Counts and funding for major NHMRC grants and fellowship categories announced on 9 November 2015

Category	Number awarded	Number awarded related to mental health	Total funding across all domains ($)	Funding related to mental health ($)
Career development fellowship	55	5 (9.1%)	23 915 192	2 184 844 (9.1%)
Early career fellowship	124	13 (10.5%)	38 102 059	3 779 955 (9.9%)
Research fellowship	69	8 (11.6%)	51 239 170	6 070 820 (11.8%)
Development grant	24	0	14 142 312	0
Standard project grant	483	48 (9.9%)	404 722 995	48 622 759 (12.0%)
NHMRC–ARC dementia research development fellowship	76	6 (7.9%)	43 669 587	3 308 618 (7.6%)
Total (all schemes)	1037	85 (8.2%)	$763 481 138	$65 746 208 (8.6%)

ARC = Australian Research Council. NHMRC = National Health and Medical Research Council. ◆

proportional to disease burden. Given that the problem is not the quality of the research (mental health research outperforms other disciplines on the world stage),[3] the working hypothesis remains that the primary causes are capacity (limited number of active mental health researchers) and the nature of mental health research (NHMRC category descriptors do not favour translational research — real-world trials are rarely flawless). Considering the capacity concern, it is disappointing that the number of opportunities provided to early- and mid-career fellowship applicants in mental health remains low.

The prevalence of depression and suicide rate has not changed in the past decade, while the costs of mental health to the community are increasing rapidly. Recent figures indicate that the government spent about $4.5 billion on mental health with about 21% of this spent on hospital funding; 21% on carer funding and 20% on the Medicare Benefits Schedule. These spends represented an increase of between 13% and 53% over the past 7 years.[6] Critically, this investment has not increased access to evidence-based mental health care, which remains low at 11–20%.[7] Yet, research funding has remained stagnant over the same period, with considerable decreases after adjusting for inflation. Mental health research has the potential to transform the lives of Australians and to save costs.

So what is to be done? First, impress upon the public, scientists, government and politicians the importance of research as the key solution to managing the escalating costs of mental health — estimated to be $4.5 billion, which represents an increase of up to 53% over the past 7 years.[6] Second, recognise that research funding in Australia has to change, as in the UK, where the proportion of funding to mental health has increased by 1.5% from 2004–2014.[2] Third, we need to determine the reasons for low yields from philanthropy and non-government support for mental health, and actively overcome barriers and capture funds.

We call on the Australian government to develop a clear, empirical basis for using health priorities to allocate funding from the emerging Medical Research Future Fund that accounts for indices such as burden of disease and building capacity in underfunded areas. The government approved the establishment of the Medical Research Future Fund in 2015 to drive innovation in medical research, with funding guidelines currently being developed. The resulting doubling of investment in medical research in Australia offers a unique opportunity to overcome the gap in the funding of mental health research identified here. The mental health community (consumers, researchers, clinicians and the wider community) look forward to continuing to contribute ideas to the Australian Medical Research Advisory Board regarding a more equitable distribution of research funding.

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References are available online at www.mja.com.au.

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1 Bloom DE, Cafiero ET, Jané-Llopis E, et al. The global economic burden of noncommunicable diseases. Geneva: World Economic Forum; 2011.

2 UK Clinical Research Collaboration. UK health research analysis 2014. London: Medical Research Council; 2015. http://www.hrcsonline.net/sites/default/files/UKCRCHealthResearchAnalysis2014%20WEB.pdf (accessed Feb 2016).

3 Christensen H, Batterham PJ, Hickie IB, et al. Funding for mental health research: the gap remains. *Med J Aust* 2011; 195: 681-684. https://www.mja.com.au/journal/2011/195/11/funding-mental-health-research-gap-remains

4 Christensen H, Krysinska K, Murray S. The gap remains: NHMRC research funding for suicide and self-harm, 2000–2014. *Med J Aust* 2015; 202: 525-526. https://www.mja.com.au/journal/2015/202/10/gap-remains-nhmrc-research-funding-suicide-and-self-harm-2000-2014

5 Australian Institute of Health and Welfare. Australian Burden of Disease Study: impact and causes of illness and death in Australia 2011 (Australian Burden of Disease Study Series No. 3. BOD4). Canberra: AIHW; 2016. http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=60129555476 (accessed Aug 2016).

6 National Mental Health Commission. The National Review of Mental Health Programmes and Services. Sydney: NMHC; 2014. http://www.mentalhealthcommission.gov.au/media/120232/FinalReports.zip (accessed Feb 2016).

7 Andrews G, Titov N, Schwencke G. Untreated depression in the community. *BJPsych Bull* 2009; 33: 407-408. ■